

REMARKS

In response to the Office Action of October 15, 2008 which was made final, Applicants hereby file a Request for Continued Examination under 37 CFR §1.114.

Claims 10-13, 17-18, and 20-24 are canceled herewith without prejudice. Applicants reserve their right to pursue claims 10-13, 17-18, and 20-24 and/or related subject matter of other claims in continuing applications. Claims 8, 9, 14-16, 19, and 15 are currently pending. Claims 8, 14-16, and 19 are currently amended. Support for the amendments to claims 8, 14-16, and 19 can at least be found in the paragraph spanning pages 7 and 8 of the specification as originally filed. Support for the new claim 25 can at least be found in the paragraph spanning pages 7 and 8 of the specification as originally filed and support for new claim 26 can at least be found in on page 4, lines 17-19, of the specification as originally filed.

Information Disclosure Statement

An Information Disclosure Statement (IDS) is provided herewith as a submission under 37 C.F.R §1.114 (c).

Double Patenting

In the Office Action of October 15, 2008, claims 10-13, 17, 18, and 20-24 were provisionally rejected over claims 1-4 and 6 of U.S. Patent No. 6,717,034 B2 for alleged nonstatutory obviousness type double patenting. The cancellation of those claims in this response renders this rejection moot with respect to the currently pending claims 8, 9, 14-16, and 19. However, Applicants reserve the right to contest any allegations of double patenting of

claims 10-13, 17-18, and 20-24 and/or related subject matter of other claims in any continuing applications.

Claim Rejections -35 USC §112, 1st Paragraph

In the Office Action of October 15, 2008, claims 10-13, 17, 18, and 20-24 were rejected under 35 USC §112, 1st Paragraph, for alleged failure to comply with the written description requirement. The cancellation of those rejected claims in this response renders this rejection moot with respect to the currently pending claims 8, 9,14-16, and 19. However, Applicants cancellation of claims 10-13, 17-18, and 20-24 for purposes of advancing prosecution of the currently pending claims should not be construed as an admission that the Examiner's rejection of these claims under 35 USC §112, 1st Paragraph is at all proper or correct. Applicants reserve the right to contest any rejections of claims 10-13, 17-18, and 20-24 and/or related subject matter of other claims for alleged lack of written description in any continuing applications.

Claim Rejections -35 USC §102(b)

In the Office Action of October 15, 2008, claims 10-13, 17, 18, and 20-24 were rejected under 35 USC §102(b) over alleged anticipation by Ratcliffe et al. (WO 01/26459 A2) taken with the evidence of Jiang et al. (US Patent Application Publication 2005/0097638). The cancellation of those rejected claims in this response renders this rejection moot with respect to the currently pending claims 8, 9,14-16, and 19. However, Applicants cancellation of claims 10-13, 17-18, and 20-24 for purposes of advancing prosecution of the currently pending claims should not be construed as an admission that the Examiner's rejection of these claims under 35 USC §102(b) is at all proper or correct. Applicants reserve the right to contest any rejections of claims 10-13,

17-18, and 20-24 and/or related subject matter of other claims for alleged anticipation by Ratcliffe et al. in view of the evidence of Jiang et al. in any continuing applications.

Claim Rejections -35 USC §103

In the Office Action of October 15, 2008, claims 8, 9, 12, 14-16, and 19 were rejected under 35 USC §103 for alleged obviousness over Ratcliffe et al. (WO 01/26459 A2) in view of Buendgen (U.S. Patent 5,866,763). In this rejection, the Examiner alleged that Ratcliffe et al. taught transformation of corn plants with SEQ ID NO:1 (i.e. SEQ ID NO:48 of Ratcliffe et al.) and screening the transformed plants for modified traits that include drought. The Examiner further alleged that “Given the success of Ratcliffe et al., one of ordinary skill in the art would have had a reasonable expectation of success, given that the function of instant SEQ ID NO:1 appears to flow from the structure”. Buendgen is alleged to provide disclosure of hybrid corn plants produced by crossing a transgenic corn line to another corn line.

In considering this obviousness rejection, Applicants first note that any potential prior art reference must be considered in its entirety, including portions that lead away from the claimed invention (see MPEP § 2141.02, citing *W.L. Gore & Associates, Inc. v. Garlock, Inc.*, 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984)). The sentence on Page 7 of Ratcliffe et al. that contains the statement regarding enhanced tolerance to drought cited by the Examiner reads as follows:

Trait modifications of particular interest include those to seed (embryo), fruit, root, flower, leaf, stem, shoot, seedling or the like, including: enhanced tolerance to environmental conditions including freezing, chilling, heat, *drought*, *water saturation*, radiation and ozone; enhanced resistance to microbial, fungal, or viral

diseases; resistance to nematodes, decreased herbicide sensitivity, enhanced tolerance to heavy metals (or enhanced ability to take up heavy metals), enhanced growth under poor photoconditions (e.g. low light and/or short day length), or changes in expression levels of genes of interest. (*emphasis added*)

The following portion of this paragraph of Ratcliffe et al. (p. 7, lines 22-36) go on to recite a long list of additional plant trait modifications relating to various plant metabolites, physical characteristics, growth characteristics, and architecture characteristics that “may be modified”. Although Ratcliffe et al. recites tolerance to drought, they immediately thereafter recite tolerance to water saturation, which is the very antithesis of tolerance to drought. Since tolerance to water saturation is the polar opposite of the Applicant’s claimed method for imparting water deficit tolerance, the recitation of tolerance to water saturation by Ratcliffe et al. is not the mere disclosure of an “alternative” to drought tolerance. At best, the equivalent disclosure of these two diametrically opposed traits by Ratcliffe et al. as “trait modifications of particular interest” in a long list of other wholly unrelated traits would have provided nothing more than an “invitation to experimentation”. These deficiencies of Ratcliffe et al. are not remedied by Buendgen as Buendgen merely teaches crossing of transgenic corn plants to other corn plants and does not specifically disclose nor suggest use of the recited transcription factors to obtain drought tolerance as claimed herein.

To determine if a given reference provides the “reasonable expectation of success” required for obviousness, the courts have indicated that prior art that merely invites one “to vary all parameters or try each of numerous possible choices until one possibly arrived at a successful result, where the prior art gave either no indication of which parameters were critical or no

direction as to which of many possible choices is likely to be successful” does not render a claim obvious (see *Pharmastem Therapeutics, Inc. v. Viacell*, 491 F.3d 1342, 83 U.S.P.Q.2d 1289, (Fed. Cir. 2007), citing *In re O’Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988)). Similarly, a claim is not obvious when all that was suggested “was to explore a new technology or general approach that seemed to be a promising field of experimentation, where the prior art gave only general guidance as to the particular form of the claimed invention or how to achieve it” (see *Pharmastem Therapeutics, Inc. v. Viacell*, 491 F.3d 1342, 83 U.S.P.Q.2d 1289, (Fed. Cir. 2007), citing *In re O’Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988)).

Analysis of Ratcliffe et al. under the criteria outlined by the courts for providing a “reasonable expectation of success” clearly indicates that this reference does not render the currently pending claims obvious. First, Ratcliffe et al. provide no direction as to which of many possible choices is likely to be successful. Ratcliffe et al. show that expression of SEQ ID NO:48 (i.e. SEQ ID NO:1 of the instant application) imparts a late flowering trait in transgenic *Arabidopsis* plants (see Table 2 on Page 28 of Ratcliffe et al.). Ratcliffe et al. thus show that the SEQ ID NO: 1 transcription factor can provide one trait that is very distinct from the trait claimed. However, the SEQ ID NO: 1 transcription factor is one of 28 distinct transcription factors (Page 6, lines 6-26 of Ratcliffe et al.) and drought tolerance is one of at least 64 distinct traits (p. 7, lines 16-36 of Ratcliff et al.) presented as possible choices by Ratcliffe et al. Thus, Ratcliffe et al. at best present at least 1,792 potential choices (i.e. the product of 28 potential genes multiplied by 64 potential traits) with no direction or indication that any single trait modification other than flowering time or vernalization was likely to be obtained. There was clearly no guidance or suggestion that one of the 28 genes (i.e. such as SEQ ID NO:48 of Ratcliffe et al.) would be useful in a method of imparting water deficit tolerance to a crop plant

as provided in the present application and claims.. The only guidance provided by Ratcliffe et al. is the very general guidance to explore a potentially promising field of experimentation and the very general guidance as to the particular form of the claimed invention that the courts have deemed insufficient for establishing obviousness (see *Pharmastem Therapeutics, Inc. v. Viacell*, 491 F.3d 1342, 83 U.S.P.Q.2d 1289, (Fed. Cir. 2007), citing *In re O'Farrell*, 853 F.2d 894, 903 (Fed. Cir. 1988)). Again, these deficiencies of Ratcliffe et al. are not remedied by Buendgen as Buendgen merely teaches crossing of transgenic corn plants to other corn plants and does not specifically disclose nor suggest use of the recited transcription factors to obtain drought tolerance as claimed herein.

As to the Examiner's allegation that "one of ordinary skill in the art would have had a reasonable expectation of success, given that the function of instant SEQ ID NO:1 appears to flow from the structure", it should be noted that this particular function of imparting water deficit tolerance in a transgenic plant was shown by the Applicant's instant disclosure, not by Ratcliffe et al. and Buendgen. Furthermore, the data provided on page 2 of the Declaration under 37 CFR §1.132 of Dr. Paul Chomet filed on May 23, 2008 indicates that only certain transgenic plants comprising SEQ ID NO:1 or homologous G1073 genes display water deficit tolerance, thus demonstrating that conferral of water deficit tolerance by SEQ ID NO:1 or homologous G1073 genes is not an inherent or latent property of such sequences. Consequently, the subset of transgenic plants comprising SEQ ID NO:1 or homologous G1073 genes that exhibit water deficit tolerance are identified by a screening process. Thus, at the time of filing one skilled in the art had no basis for believing that this particular sequence could confer the water deficit trait. The basis for believing that SEQ ID NO:1 or homologous G1073 transcription factors could

impart water deficit tolerance is only provided by the impermissible hindsight afforded by the Applicant's disclosure.

In summary, the combination of Ratcliffe et al. and Buendgen do not provide the level of guidance or reasonable expectation of success necessary to establish obviousness of the invention as claimed. Applicants therefor respectfully request withdrawal of the rejections of claims 8, 9, 12, 14-16, and 19 under 35 USC §103 for alleged obviousness over Ratcliffe et al. in view of Buendgen.

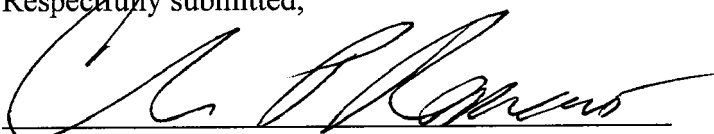
Conclusion

Applicants respectfully request that the Examiner consider the Information Disclosure Statement and Response submitted herewith in this Request for Continued Examination. It is believed that a full and complete response has been made, and that the present application is thus in condition for allowance. If the Examiner believes, for any reason, that a personal communication will expedite prosecution of this application, he is invited to telephone the undersigned at the number provided.

The signature below constitutes a representation to the United States Patent and Trademark Office that the undersigned patent practitioner is authorized to represent the Applicants under the provisions of 37 CFR § 1.34.

In the event that any additional fees and/or any extensions of time pursuant to 37 CFR § 1.136 are necessary to prevent abandonment of this application, then any such fees required are hereby authorized to be charged to our Deposit Account No. 20-0823 and any such extensions of time are hereby petitioned for.

Respectfully submitted,

A handwritten signature in black ink, appearing to read 'C. P. Romano', written over a horizontal line.

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